<u>REMARKS</u>

Applicants request reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-4, 6, 8, 10, 12, 14, 18, 19, 21, 23, 25, 26, 28, 30, 32, 34, 35, 37, and 39-41 are pending in this application, with claims 1, 6, 21, 25, 26, 30, 34, and 35 being independent. Claims 1, 21, 25, 30, and 34 have been amended herein, and claims 40 and 41 are newly added. Support for the amendments and new claims can be found in the specification, as filed. No new matter has been added.

In the final Office Action mailed January 30, 2004, claim 4 was objected to as including a feature lacking antecedent basis in the specification. Claim 23 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to provide sufficient antecedent basis for a feature. Claim 1, 2, 4, 6, 8, 21, 25, 26, 30, 34, 35, and 39 were rejected under 35 U.S.C. § 102(e) as being directly anticipated by U.S. Patent No. 5,749,068 to <u>Suzuki</u>. Claims 3, 10, 12, 14, 18, 19, 23, 28, 32, and 37 were variously rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of <u>Suzuki</u>. and one or more of U.S. Patent Nos. 5,293,588 to <u>Satoh et al.</u>, 4,907,274 to <u>Nomura et al.</u>, and 4,922,538 to <u>Tchorzewski</u>.

Upon consideration of Applicant's Request for Reconsideration After Final Rejection filed April 30, 2004, an Advisory Action was then mailed June 3, 2004, in which the objection to claim 4 and the rejection of claim 23 under 35 U.S.C. § 112 were noted as being reconsidered and would be withdrawn. The Advisory Action did not, however, withdraw the prior art rejections, and further cited U.S. Patent No. 5,970,466 to <u>Goldberg et al.</u>, as further relevant art. Applicants now request formal withdrawal of the objection to claim 4 and of the

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rejection of claim 23. Applicants also traverse the prior art rejections, but have nonetheless amended claims 1, 21, 25, 30, and 34, to more clearly define over the cited art.

The present invention as recited in the pending independent claims relates to environment adaptation for speech recognition. In a conventional speech recognition system, a speech input terminal transmits inputted speech data to a speech recognition apparatus through a network, and the speech recognition apparatus executes speech recognition for the speech data. In such a system, because users, speech input terminals, and circumstances can all vary, adaptation of the speech recognition to an environment at the side of the speech input terminal is needed.

According to the present invention recited in the independent claims, a speech input terminal creates a model for environment adaptation for speech recognition and the model is then transmitted to the speech recognition apparatus. Thus, it is not required to prepare various models in the speech recognition apparatus in advance, and, as an advantage, real-time environment adaptation for speech recognition can be achieved, providing a result that has accounted for an environment at the side of a speech input terminal at that time.

Independent claim 1 of the invention, as amended herein, recites a speech input terminal in a speech communication system including the speech input terminal for transmitting inputted speech data to a speech recognition apparatus through a network, and the speech recognition apparatus executing speech recognition processing for the speech data transmitted from the speech input terminal. The speech input terminal includes speech input means, means for creating a model based on information captured by the speech input means, the model being

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for environment adaptation for speech recognition in the speech recognition apparatus, and communication means for transmitting the model to the speech recognition apparatus.

Independent claim 6 recites a speech recognition apparatus in a speech communication system (generally corresponding to the speech communication system described in claim 1). The speech recognition apparatus includes speech recognition means for executing speech recognition processing for the speech data transmitted from the speech input terminal through the network and means for receiving a model for environment adaptation for speech recognition from the speech input terminal, the model being created by the speech input terminal based on information captured by the speech input terminal. The speech recognition means executes speech recognition processing on the basis of the model.

Independent claim 21, as amended, recites a speech communication system (generally corresponding to the speech communication system described in claim 1). In the system, the speech input terminal includes speech input means, means for creating a model based on information captured by the speech input means, the model being for environment adaptation for speech recognition in the speech recognition apparatus, and communication means for transmitting the model to the speech recognition apparatus, which receives the model. The speech recognition apparatus includes means for executing speech recognition processing on the basis of the model.

Independent claims 25, 26, and 30 are method claims reciting features that generally correspond to those recited in claims 1, 6, and 21, respectively.

Independent claims 34 and 35 are storage medium claims reciting features that generally correspond to those recited in claim 1 and 6.

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Accordingly, as recited in each of the independent claims, a model for environment adaptation for speech recognition in a speech recognition apparatus is created in a speech input terminal based on information captured by the speech input terminal and is transmitted to the speech recognition apparatus.

Applicants submit that at least these features are not taught or suggested by the cited documents.

Suzuki notes at column 7, lines 54-55, merely that it is acceptable to input *speech data* from a network. However, in Suzuki, no so-called client of a network, corresponding to the input terminal in the speech communication system of the invention, is shown in the figures. Moreover, nowhere does Suzuki teach that a model is created at some client and transmitted through a network to the speech recognition apparatus 100, which is interpreted as a server of a network when speech data is inputted thereto from a client through a network. The noise model of Suzuki is present in the apparatus 100—it is not transmitted through a network to the apparatus from some client. Suzuki also has no suggestion that some unshown *speech input terminal can create a model* for environment adaptation and *transmit it through a network* to the apparatus.

Accordingly, Applicants submit that the independent claims patentably define over Suzuki.

Applicants further submit that newly cited Goldberg et al. does nothing to remedy the deficiencies of Suzuki. Goldberg et al. relates to selective noise/channel/coding models and recognizers for automatic speech recognition. Applicants understand Goldberg et al. to teach the storing of speech recognition models based on various background noises in a speech

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recognition, the selection of the stored models according to speech data, and the execution of speech recognition for the speech data using the selected model. <u>Goldberg et al.</u> does not teach or suggest, however, the creation of a recognition model at a speech input terminal and transmission of the speech recognition model from the speech input terminal to a speech recognition apparatus. Instead, <u>Goldberg et al.</u> teaches that various models are prepared and stored in advance.

<u>Satoh et al.</u>, <u>Nomura et al.</u>, and <u>Tchorzewski</u> were cited in the final Office Action for teaching features of dependent claims. Applicants submit that these references fail to remedy the deficiencies of <u>Suzuki</u> discussed above.
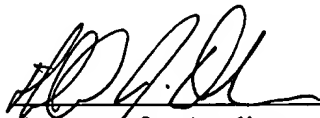
For the foregoing reasons, reconsideration and withdrawal of the rejections under 35 U.S.C. §§ 102 and 103 are respectfully requested.

Applicants further submit that the dependent claims also should be deemed allowable, by virtue of their dependency on one of the independent claims, and for reciting additional patentable features. Favorable and independent consideration of the dependent claims are respectfully requested.

Applicants submit that the application is in condition for allowance. Favorable consideration of the claims and passage to issue of the application at the Examiner's earliest convenience are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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